

In the claims

The following is a listing of claims in the application with their status and the text of all active claims:

Listing of Claims:

1. (Original) A system for optical storage device speed error compensation, comprising:
 - a circuit for receiving an speed error signal and outputting a first tracking control effort signal;
 - a feedforward controller for receiving the speed error signal and generating a second tracking control effort signal according to a DC steady state error in the speed error signal;
 - an optical head module for moving at an actual speed determined by the total of the first tracking control effort signal and the second tracking control effort signal;
 - a gain controller for generating a feedback speed signal according to the actual speed of the optical head module; and
 - a comparison device subtracting the feedback speed signal from a predetermined speed signal to generate the speed error signal.

2. (Original) The system as claimed in claim 1, wherein the circuit comprises a microprocessor generating a calculated result according to the speed error signal, and a

feedback controller receiving the calculated result and outputs the first tracking control effort signal.

3. (Currently Amended) The system as claimed in claim 1, wherein the feedforward controller continuously generates the second tracking control effort signal to adjust the DC steady state error to a ~~normal~~ threshold value.

4. (Original) The system as claimed in claim 1, wherein the feedforward controller and the feedback controller are implemented by using a firmware programming a control chip.

5. (Original) The system as claimed in claim 1, wherein the optical head module is inclined orientation.

6. (Original) The system as claimed in claim 1, wherein a measurement device detects the actual speed and outputs the actual speed signal to the gain controller.

7. (Original) The system as claimed in claim 1, wherein the first tracking control effort signal and the second speed control signal are voltage signals.

8. (Currently Amended) A method for speed error compensation, comprising the steps of:

detecting an actual speed of an optical head module and outputting an actual speed signal;

obtaining a feedback speed signal by gaining the actual speed signal;

generating a speed error signal by subtracting the feedback speed signal from a predetermined speed signal;

calculating the speed error signal and outputting a first tracking control effort signal;

calculating a DC steady state error in the speed error signal and outputting a second tracking control effort signal; and

adjusting the actual speed of the optical head module according to the total of the first tracking control effort signal and the second tracking control effort signal;

wherein the second tracking control effort signal is continuously generated until the DC steady state error reaches a ~~normal~~ threshold value.

9. (Currently Amended) The method as claimed in claim 8, wherein when the speed error signal is positive and the DC steady state error exceeds the ~~normal~~ threshold value, the total of the first tracking control effort signal and the second tracking control effort signal increases the actual speed of the optical head module.

10. (Currently Amended) The method as claimed in claim 8, wherein when the speed error signal is positive and the DC steady state error is lower than the ~~normal~~

threshold value, the total of the first tracking control effort signal and the second tracking control effort signal decreases the actual speed of the optical head module.

11. (Currently Amended) The method as claimed in claim 8, wherein when the speed error signal is negative and the DC steady state error exceeds the ~~normal~~ threshold value, the total of the first tracking control effort signal and the second tracking control effort signal decreases the actual speed of the optical head module.

12. (Currently Amended) The method as claimed in claim 8, wherein when the speed error signal is negative and the DC steady state error is lower than the ~~normal~~ threshold value, the total of the first tracking control effort signal and the second tracking control effort signal increases the actual speed of the optical head module.